OIPE

CRF Errors Corrected by the STIC Systems Branch

Serial Number: 09/445,258 **ENTERED**

CRF Processing Date: 8/10/2001
Edited by:
Verified by: (STIC staf

#9

- ☐ Changed a file from non-ASCII to ASCII
- ☐ Changed the margins in cases where the sequence text was "wrapped" down to the next line.
- ☐ Edited a format error in the Current Application Data section, specifically: _____
- ☐ Edited the Current Application Data section with the actual current number. The number inputted by the applicant was ☐ the prior application data; or ☐ other _____
- ☐ Added the mandatory heading and subheadings for "Current Application Data".
- ☐ Edited the "Number of Sequences" field. The applicant spelled out a number instead of using an integer.
- ☐ Changed the spelling of a mandatory field (the headings or subheadings), specifically: _____
- ☐ Corrected the SEQ ID NO when obviously incorrect. The sequence numbers that were edited were: _____
- ☐ Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited: _____
- ☐ Corrected subheading placement. All responses must be on the same line as each subheading. If the applicant placed a response below the subheading, this was moved to its appropriate place.
- ☐ Inserted colons after headings/subheadings. Headings edited included: _____
- ☐ Deleted extra, invalid, headings used by an applicant, specifically: _____
- ☑ Deleted: ☑ non-ASCII "garbage" at the beginning/end of files; ☐ secretary initials/filename at end of file; ☐ page numbers throughout text; ☐ other invalid text, such as _____
- ☐ Inserted mandatory headings, specifically: _____
- ☐ Corrected an obvious error in the response, specifically: _____
- ☐ Edited identifiers where upper case is used but lower case is required, or vice versa.
- ☐ Corrected an error in the Number of Sequences field, specifically: _____
- ☐ A "Hard Page Break" code was inserted by the applicant. All occurrences had to be deleted.
- ☐ Deleted *ending* stop codon in amino acid sequences and adjusted the "(A)Length:" field accordingly (error due to a PatentIn bug). Sequences corrected: _____
- ☐ Other: _____

"Examiner: The above corrections must be communicated to the applicant in the first Office Action. DO NOT send a copy of this form.

3/1/95

RAW SEQUENCE LISTING DATE: 08/10/2001
PATENT APPLICATION: **US/09/445,258** TIME: 08:59:35

Input Set : **A:\Pto.amc**
Output Set: **N:\CRF3\08102001\I445258.raw**

<110> APPLICANT: Kato, Seishi
Sekine, Shingo
Kimura, Tomoko
<120> TITLE OF INVENTION: HUMAN PROTEINS HAVING TRANSMEMBRANE DOMAINS AND DNAS ENCODING THESE PROTEINS
<130> FILE REFERENCE: GIN-6706CPUS
<140> CURRENT APPLICATION NUMBER: 09/445,258
<141> CURRENT FILING DATE: 1999-12-01
<150> PRIOR APPLICATION NUMBER: PCT/US98/02445
<151> PRIOR FILING DATE: 1998-06-03
<150> PRIOR APPLICATION NUMBER: JP 9-144948
<151> PRIOR FILING DATE: 1997-06-03
<160> NUMBER OF SEQ ID NOS: 54
<170> SOFTWARE: FastSEQ for Windows Version 4.0
<210> SEQ ID NO: 1
<211> LENGTH: 382
<212> TYPE: PRT
<213> ORGANISM: Homo sapiens
<400> SEQUENCE: 1

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 1               5                  10                  15
Gly Ala Met Ser Pro Pro Gln Leu Ala Leu Asn Pro Ser Ala Leu Leu
            20                  25                  30
Ser Arg Gly Cys Asn Asp Ser Asp Val Leu Ala Val Ala Gly Phe Ala
        35                  40                  45
Leu Arg Asp Ile Asn Lys Asp Arg Lys Asp Gly Tyr Val Leu Arg Leu
    50                  55                  60
Asn Arg Val Asn Asp Ala Gln Glu Tyr Arg Arg Gly Gly Leu Gly Ser
65                  70                  75                  80
Leu Phe Tyr Leu Thr Leu Asp Val Leu Glu Thr Asp Cys His Val Leu
                85                  90                  95
Arg Lys Lys Ala Trp Gln Asp Cys Gly Met Arg Ile Phe Phe Glu Ser
            100                 105                 110
Val Tyr Gly Gln Cys Lys Ala Ile Phe Tyr Met Asn Asn Pro Ser Arg
        115                 120                 125
Val Leu Tyr Leu Ala Ala Tyr Asn Cys Thr Leu Arg Pro Val Ser Lys
    130                 135                 140
Lys Lys Ile Tyr Met Thr Cys Pro Asp Cys Pro Ser Ser Ile Pro Thr
145                 150                 155                 160
Asp Ser Ser Asn His Gln Val Leu Glu Ala Ala Thr Glu Ser Leu Ala
                165                 170                 175
Lys Tyr Asn Asn Glu Asn Thr Ser Lys Gln Tyr Ser Leu Phe Lys Val
            180                 185                 190
Thr Arg Ala Ser Ser Gln Trp Val Val Gly Pro Ser Tyr Phe Val Glu
        195                 200                 205
Tyr Leu Ile Lys Glu Ser Pro Cys Thr Lys Ser Gln Ala Ser Ser Cys
    210                 215                 220
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RAW SEQUENCE LISTING DATE: 08/10/2001
PATENT APPLICATION: US/09/445,258 TIME: 08:59:35

Input Set : A:\Pto.amc
Output Set: N:\CRF3\08102001\I445258.raw

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60 Ser Leu Gln Ser Ser Asp Ser Val Pro Val Gly Leu Cys Lys Gly Ser
61 225                 230                 235                 240
62 Leu Thr Arg Thr His Trp Glu Lys Phe Val Ser Val Thr Cys Asp Phe
63                  245                 250                 255
64 Phe Glu Ser Gln Ala Pro Ala Thr Gly Ser Glu Asn Ser Ala Val Asn
65              260                 265                 270
66 Gln Lys Pro Thr Asn Leu Pro Lys Val Glu Glu Ser Gln Gln Lys Asn
67          275                 280                 285
68 Thr Pro Pro Thr Asp Ser Pro Ser Lys Ala Gly Pro Arg Gly Ser Val
69      290                 295                 300
70 Gln Tyr Leu Pro Asp Leu Asp Asp Lys Asn Ser Gln Glu Lys Gly Pro
71 305                 310                 315                 320
72 Gln Glu Ala Phe Pro Val His Leu Asp Leu Thr Thr Asn Pro Gln Gly
73                  325                 330                 335
74 Glu Thr Leu Asp Ile Ser Phe Leu Phe Leu Glu Pro Met Glu Glu Lys
75              340                 345                 350
76 Leu Val Val Leu Pro Phe Pro Lys Glu Lys Ala Arg Thr Ala Glu Cys
77          355                 360                 365
78 Pro Gly Pro Ala Gln Asn Ala Ser Pro Leu Val Leu Pro Pro
79      370                 375                 380
82 <210> SEQ ID NO: 2
83 <211> LENGTH: 317
84 <212> TYPE: PRT
85 <213> ORGANISM: Homo sapiens
87 <400> SEQUENCE: 2
88 Met Trp Leu Tyr Leu Ala Ala Phe Val Gly Leu Tyr Tyr Leu Leu His
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90 Trp Tyr Arg Glu Arg Gln Val Val Ser His Leu Gln Asp Lys Tyr Val
91              20                  25                  30
92 Phe Ile Thr Gly Cys Asp Ser Gly Phe Gly Asn Leu Leu Ala Arg Gln
93          35                  40                  45
94 Leu Asp Ala Arg Gly Leu Arg Val Leu Ala Ala Cys Leu Thr Glu Lys
95      50                  55                  60
96 Gly Ala Glu Gln Leu Arg Gly Gln Thr Ser Asp Arg Leu Glu Thr Val
97 65                  70                  75                  80
98 Thr Leu Asp Val Thr Lys Met Glu Ser Ile Ala Ala Ala Thr Gln Trp
99                  85                  90                  95
100 Val Lys Glu His Val Gly Asp Arg Gly Leu Trp Gly Leu Val Asn Asn
101             100                 105                 110
102 Ala Gly Ile Leu Thr Pro Ile Thr Leu Cys Glu Trp Leu Asn Thr Glu
103         115                 120                 125
104 Asp Ser Met Asn Met Leu Lys Val Asn Leu Ile Gly Val Ile Gln Val
105     130                 135                 140
106 Thr Leu Ser Met Leu Pro Leu Val Arg Arg Ala Arg Gly Arg Ile Val
107 145                 150                 155                 160
108 Asn Val Ser Ser Ile Leu Gly Arg Val Ala Phe Phe Val Gly Gly Tyr
109                 165                 170                 175
110 Cys Val Ser Lys Tyr Gly Val Glu Ala Phe Ser Asp Ile Leu Arg Arg
111             180                 185                 190
```

RAW SEQUENCE LISTING DATE: 08/10/2001
PATENT APPLICATION: US/09/445,258 TIME: 08:59:35

Input Set : A:\Pto.amc
Output Set: N:\CRF3\08102001\I445258.raw

```
112 Glu Ile Gln His Phe Gly Val Lys Ile Ser Ile Val Glu Pro Gly Tyr
113         195                 200                 205
114 Phe Arg Thr Gly Met Thr Asn Met Thr Gln Ser Leu Glu Arg Met Lys
115     210                 215                 220
116 Gln Ser Trp Lys Glu Ala Pro Lys His Ile Lys Glu Thr Tyr Gly Gln
117 225                 230                 235                 240
118 Gln Tyr Phe Asp Ala Leu Tyr Asn Ile Met Lys Glu Gly Leu Leu Asn
119                 245                 250                 255
120 Cys Ser Thr Asn Leu Asn Leu Val Thr Asp Cys Met Glu His Ala Leu
121             260                 265                 270
122 Thr Ser Val His Pro Arg Thr Arg Tyr Ser Ala Gly Trp Asp Ala Lys
123         275                 280                 285
124 Phe Phe Phe Ile Pro Leu Ser Tyr Leu Pro Thr Ser Leu Ala Asp Tyr
125     290                 295                 300
126 Ile Leu Thr Arg Ser Trp Pro Lys Pro Ala Gln Ala Val
127 305                 310                 315
130 <210> SEQ ID NO: 3
131 <211> LENGTH: 296
132 <212> TYPE: PRT
133 <213> ORGANISM: Homo sapiens
135 <400> SEQUENCE: 3
136 Met Ser Asp Ser Lys Glu Pro Arg Val Gln Gln Leu Gly Leu Leu Gly
137  1               5                  10                  15
138 Cys Leu Gly His Gly Ala Leu Val Leu Gln Leu Leu Ser Phe Met Leu
139             20                  25                  30
140 Leu Ala Gly Val Leu Val Ala Ile Leu Val Gln Val Ser Lys Val Pro
141         35                  40                  45
142 Ser Ser Leu Ser Gln Glu Gln Ser Glu Gln Asp Ala Ile Tyr Gln Asn
143     50                  55                  60
144 Leu Thr Gln Leu Lys Ala Ala Val Gly Glu Leu Ser Glu Lys Ser Lys
145 65                  70                  75                  80
146 Leu Gln Glu Ile Tyr Gln Glu Leu Thr Gln Leu Lys Ala Ala Val Gly
147                 85                  90                  95
148 Glu Leu Pro Glu Lys Ser Lys Leu Gln Glu Ile Tyr Gln Glu Leu Thr
149             100                 105                 110
150 Arg Leu Lys Ala Ala Val Gly Glu Leu Pro Glu Lys Ser Lys Leu Gln
151         115                 120                 125
152 Glu Ile Tyr Gln Glu Leu Thr Arg Leu Lys Ala Ala Val Gly Glu Leu
153     130                 135                 140
154 Pro Glu Lys Ser Lys Leu Gln Glu Ile Tyr Gln Glu Leu Thr Arg Leu
155 145                 150                 155                 160
156 Lys Ala Ala Val Gly Glu Leu Pro Glu Lys Ser Lys Leu Gln Glu Ile
157                 165                 170                 175
158 Tyr Gln Glu Leu Thr Glu Leu Lys Ala Ala Val Gly Glu Leu Pro Glu
159             180                 185                 190
160 Lys Ser Lys Leu Gln Glu Ile Tyr Gln Glu Leu Thr Gln Leu Lys Ala
161         195                 200                 205
162 Ala Val Gly Glu Leu Pro Asp Gln Ser Lys Gln Gln Gln Ile Tyr Gln
163     210                 215                 220
```

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PATENT APPLICATION: US/09/445,258 TIME: 08:59:35

Input Set : A:\Pto.amc
Output Set: N:\CRF3\08102001\I445258.raw

```
164 Glu Leu Thr Asp Leu Lys Thr Ala Phe Glu Arg Leu Cys Arg His Cys
165 225                 230                 235                 240
166 Pro Lys Asp Trp Thr Phe Phe Gln Gly Asn Cys Tyr Phe Met Ser Asn
167                 245                 250                 255
168 Ser Gln Arg Asn Trp His Asp Ser Val Thr Ala Cys Gln Glu Val Arg
169             260                 265                 270
170 Ala Gln Leu Val Val Ile Lys Thr Ala Glu Glu Gln Leu Pro Ala Val
171         275                 280                 285
172 Leu Glu Gln Trp Arg Thr Gln Gln
173     290                 295
176 <210> SEQ ID NO: 4
177 <211> LENGTH: 197
178 <212> TYPE: PRT
179 <213> ORGANISM: Homo sapiens
181 <400> SEQUENCE: 4
182 Met Cys Thr Gly Lys Cys Ala Arg Cys Val Gly Leu Ser Leu Ile Thr
183  1               5                  10                  15
184 Leu Cys Leu Val Cys Ile Val Ala Asn Ala Leu Leu Leu Val Pro Asn
185             20                  25                  30
186 Gly Glu Thr Ser Trp Thr Asn Thr Asn His Leu Ser Leu Gln Val Trp
187         35                  40                  45
188 Leu Met Gly Gly Phe Ile Gly Gly Gly Leu Met Val Leu Cys Pro Gly
189     50                  55                  60
190 Ile Ala Ala Val Arg Ala Gly Gly Lys Gly Cys Cys Gly Ala Gly Cys
191 65                  70                  75                  80
192 Cys Gly Asn Arg Cys Arg Met Leu Arg Ser Val Phe Ser Ser Ala Phe
193                 85                  90                  95
194 Gly Val Leu Gly Ala Ile Tyr Cys Leu Ser Val Ser Gly Ala Gly Leu
195             100                 105                 110
196 Arg Asn Gly Pro Arg Cys Leu Met Asn Gly Glu Trp Gly Tyr His Phe
197         115                 120                 125
198 Glu Asp Thr Ala Gly Ala Tyr Leu Leu Asn Arg Thr Leu Trp Asp Arg
199     130                 135                 140
200 Cys Glu Ala Pro Pro Arg Val Val Pro Trp Asn Val Thr Leu Phe Ser
201 145                 150                 155                 160
202 Leu Leu Val Ala Ala Ser Cys Leu Glu Ile Val Leu Cys Gly Ile Gln
203                 165                 170                 175
204 Leu Val Asn Ala Thr Ile Gly Val Phe Cys Gly Asp Cys Arg Lys Lys
205             180                 185                 190
206 Gln Asp Thr Pro His
207         195
210 <210> SEQ ID NO: 5
211 <211> LENGTH: 221
212 <212> TYPE: PRT
213 <213> ORGANISM: Homo sapiens
215 <400> SEQUENCE: 5
216 Met Glu Ala Gly Gly Phe Leu Asp Ser Leu Ile Tyr Gly Ala Cys Val
217  1               5                  10                  15
218 Val Phe Thr Leu Gly Met Phe Ser Ala Gly Leu Ser Asp Leu Arg His
```

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Input Set : A:\Pto.amc
Output Set: N:\CRF3\08102001\I445258.raw

```
219              20                  25                  30
220 Met Arg Met Thr Arg Ser Val Asp Asn Val Gln Phe Leu Pro Phe Leu
221         35                  40                  45
222 Thr Thr Glu Val Asn Asn Leu Gly Trp Leu Ser Tyr Gly Ala Leu Lys
223     50                  55                  60
224 Gly Asp Gly Ile Leu Ile Val Val Asn Thr Val Gly Ala Ala Leu Gln
225 65                  70                  75                  80
226 Thr Leu Tyr Ile Leu Ala Tyr Leu His Tyr Cys Pro Arg Lys Arg Val
227                 85                  90                  95
228 Val Leu Leu Gln Thr Ala Thr Leu Leu Gly Val Leu Leu Leu Gly Tyr
229             100                 105                 110
230 Gly Tyr Phe Trp Leu Leu Val Pro Asn Pro Glu Ala Arg Leu Gln Gln
231         115                 120                 125
232 Leu Gly Leu Phe Cys Ser Val Phe Thr Ile Ser Met Tyr Leu Ser Pro
233     130                 135                 140
234 Leu Ala Asp Leu Ala Lys Val Ile Gln Thr Lys Ser Thr Gln Cys Leu
235 145                 150                 155                 160
236 Ser Tyr Pro Leu Thr Ile Ala Thr Leu Leu Thr Ser Ala Ser Trp Cys
237                 165                 170                 175
238 Leu Tyr Gly Phe Arg Leu Arg Asp Pro Tyr Ile Met Val Ser Asn Phe
239             180                 185                 190
240 Pro Gly Ile Val Thr Ser Phe Ile Arg Phe Trp Leu Phe Trp Lys Tyr
241         195                 200                 205
242 Pro Gln Glu Gln Asp Arg Asn Tyr Trp Leu Leu Gln Thr
243     210                 215                 220
246 <210> SEQ ID NO: 6
247 <211> LENGTH: 251
248 <212> TYPE: PRT
249 <213> ORGANISM: Homo sapiens
251 <400> SEQUENCE: 6
252 Met Ser Asp Ile Gly Asp Trp Phe Arg Ser Ile Pro Ala Ile Thr Arg
253  1               5                  10                  15
254 Tyr Trp Phe Ala Ala Thr Val Ala Val Pro Leu Val Gly Lys Leu Gly
255             20                  25                  30
256 Leu Ile Ser Pro Ala Tyr Leu Phe Leu Trp Pro Glu Ala Phe Leu Tyr
257         35                  40                  45
258 Arg Phe Gln Ile Trp Arg Pro Ile Thr Ala Thr Phe Tyr Phe Pro Val
259     50                  55                  60
260 Gly Pro Gly Thr Gly Phe Leu Tyr Leu Val Asn Leu Tyr Phe Leu Tyr
261 65                  70                  75                  80
262 Gln Tyr Ser Thr Arg Leu Glu Thr Gly Ala Phe Asp Gly Arg Pro Ala
263                 85                  90                  95
264 Asp Tyr Leu Phe Met Leu Leu Phe Asn Trp Ile Cys Ile Val Ile Thr
265             100                 105                 110
266 Gly Leu Ala Met Asp Met Gln Leu Leu Met Ile Pro Leu Ile Met Ser
267         115                 120                 125
268 Leu Leu Tyr Val Trp Ala Gln Leu Asn Arg Asp Met Ile Val Ser Phe
269     130                 135                 140
270 Trp Phe Gly Thr Arg Phe Lys Ala Cys Tyr Leu Pro Trp Val Ile Leu
```

VERIFICATION SUMMARY DATE: 08/10/2001
PATENT APPLICATION: **US/09/445,258** TIME: 08:59:36

Input Set : **A:\Pto.amc**
Output Set: **N:\CRF3\08102001\I445258.raw**